

*Virginia*  
JUNE 1970 *Wildlife*  
VOLUME XXXI / NUMBER 6  
20 CENTS



JOHN W. TAYLOR

# Virginia Wildlife

*Dedicated to the Conservation of  
Virginia's Wildlife and Related Natural Resources  
and to the Betterment of  
Outdoor Recreation in Virginia*

**Published by VIRGINIA COMMISSION OF GAME AND INLAND FISHERIES, Richmond, Virginia 23230**



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**JUNE**

**Volume XXXI/No. 6**

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**COVER:** Tops among surface feeding game ducks of the eastern states, the black duck is almost exclusively an Atlantic Flyway species. Our artist: John W. Taylor, Edgewater, Maryland.

**SUBSCRIPTIONS:** One year, \$1.50; three years, \$3.50. Give check or money order, made payable to the Treasurer of Virginia, to local game commission employee or send to Commission of Game and Inland Fisheries, P. O. Box 11104, Richmond, Virginia 23230.

VIRGINIA WILDLIFE is published monthly at Richmond, Virginia, by the Commission of Game and Inland Fisheries, 4010 W. Broad Street. All magazine subscriptions, change of address notices, and inquiries should be sent to Box 11104, Richmond, Va. 23230. The editorial office gratefully receives for publication news items, articles, photographs, and sketches of good quality which deal with Virginia's soils, water, forests, and wildlife. The Commission assumes no responsibility for unsolicited manuscripts and illustrative material. Credit is given on material published. Permission to reprint text material is granted provided credit is given the Virginia Commission of Game and Inland Fisheries and VIRGINIA WILDLIFE. Clearances must be made with photographers or artists to reproduce illustrations.

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## EDITORIAL

## Man and His Environment

**E**VER since man began to learn and practice the art of agriculture he has been modifying at an ever increasing rate his own environment and that of other life forms with which he coexists on the planet.

As a hunter and gatherer he may have assisted geologic and climatic forces in the extermination of a few species upon which he preyed, but until he learned to plant seed, select and improve breeding stock, and cultivate "single species, even aged stands" his effect upon the habitat in which he lived did not amount to much. The agricultural economy, which began some 10,000 years ago, evolved into a tool oriented economy and culture, and the result has been the most rapidly accelerating modification of the earth's biosphere that has ever taken place.

Man has not only modified his environment, but indirectly he has greatly modified himself in the process. There has been a continuing natural selection favoring those humans who were most efficient in the agricultural arts and the use of tools—in short, those humans most adaptable to the kind of environment they themselves were creating. Who doubts that the urban bred family of today is better adapted to city living than to wilderness?

Probably mankind can go on happily adapting to a changing environment, provided the changes are gradual enough to allow time for the adaptation to take place. Thus, what constitutes a high quality human environment is not necessarily fixed for all men for all time.

Opposition to environmental manipulation, on the premise that the "natural" environment, if left alone, would be best in all respects for the highest and most beneficial uses to which it could be put by man, is an untenable position. Man *has* molded an environment better suited in many ways to *meet the needs of humanity today* than any that has existed before. He has the further capability of improving it to meet the needs of humanity tomorrow. He also has the technology and the tools with which he can degrade it, perhaps even destroy it as human habitat and destroy himself in the process. The question is whether he has either the wisdom to distinguish between the two possibilities or the will to decide between them.—J.F.Mc.

## Notice to Subscribers

AFTER holding the line during ten years of rising costs we finally must announce, reluctantly, an increase in the subscription price of *Virginia Wildlife*.

**Effective July 1, 1970, subscriptions will be \$2.00 for one year or \$5.00 for three years.**

Subscription orders accompanied by checks payable to the Treasurer of Virginia received in Richmond on or before June 30 will be accepted at the old rates. Subscribers may extend present subscriptions, regardless of expiration date, at the old rates provided they do so by June 30.

## Save Native Trout Streams

THE article "Trout Fishing in My Blood" by Ozzie Worley in the March 1970 issue of *Virginia Wildlife* makes an excellent case for preserving the few remaining native trout in Virginia. May I suggest that it would be quite appropriate for a magazine "dedicated to the conservation of Virginia wildlife . . ." to advocate putting a few of the more remote streams off limits before native trout become but a memory to all?

Harold H. Miller  
Washington, D. C.

*We know of no native trout streams in Virginia in which fishing pressure endangers the trout populations. Trout will remain in these streams so long as the quantity and quality of their water at the least favorable time of year is adequate to meet their needs. Protecting the streams themselves, which includes protecting the watersheds which they drain, rather than putting the streams off limits to fishermen, is the only means of saving the native trout populations which remain. And this Virginia Wildlife does advocate!—Ed.*

## Unusual Bird Record

WHILE waiting in the doctor's office the other day, I was interested in an article in the *Virginia Wildlife* magazine, called "Bird of the Month." This particular issue dealt with the purple gallinule. My husband and I were out riding last Sunday, April 5th, along Buffalo Creek near Lexington. We saw a very strange bird flying very low above the water. We went slowly, and watched it, and when it stopped on the bank, we noted its long legs, and wondered just what it was. Two days later I saw the article in the magazine, and I believe this must have been the bird it named, as the description fit perfectly.

Maybe it is not unusual to see this bird, but it was fascinating to us, and I just thought I would write you about it.

Mrs. W. A. Kelley  
Roanoke

*Doctor Murray in his Bird-of-the-Month article said that he considered his sighting of a purple gallinule in almost the identical place—on Buffalo Creek, near Lexington—one of the most unusual records of this bird in Virginia.—Ed.*

## Cover Holds Special Interest

THE cover painting on the March issue of *Virginia Wildlife* was most interesting to me, for as boys my twin brother and I trapped muskrats 55 years ago and we often heard of mink and their value in the fur trade. We always hoped to catch one but never even saw one. Last summer he and I were fishing on Claytor Lake and we saw two, one on each of two trips and in two different locations. That experience gave me a special interest in the cover painting with the Wildlife Week poster entitled "Seen any Wildlife Lately?" on the back cover of the same issue. On one trip to Claytor Lake we had a 'coon follow along the shore line as we moved slowly about 40 feet from shore. We threw him a small bluegill and he seemed very appreciative.

Rev. Alfred Shumate  
Wytheville

# A Strange Bird is the Woodcock

By KATHERINE W. MOSELEY  
*Rixeyville*

THE woodcock is an unusual game bird and quite common throughout much of eastern North America. It is rarely seen because it can and does live where least expected. The color of the feathers is so obliterative that the bird may be within easy view, yet the keenest eyes little suspect its presence. It is wary and wise and will not flush easily. After the bird flies there is a sense of wonder that the shades and streaks of russet-brown, black and gray, were so faded into the earthy background as to make the bird invisible.

One thing is certain: that wherever there are woodcocks there are earthworms, which are the mainstay of its diet. Sluggish streams surrounded by large woodsy areas, any watered lowlands, or the soft earth of plowed cornfields are favorite haunts. However, just as likely, the strange woodcock may be found in hilly, rough country that has a moist, leafy forest floor.

The woodcock is not a small bird which could be easy to overlook; it is a large, chunky bird about the size of the familiar quail. There is almost no neck but a large head. The wings are rounded and short, as is the stubby tail. Its legs are also short, but to make up for all the brevity is a long bill which is the bird's mark of distinction. It is very obvious that the bird makes its living by its bill.

The bill is long, stout, and flexible, exactly shaped to fit into the burrows of worms. The tip of the upper jaw is sensitive to touch and is capable of guiding the pliant bill with a slight motion in the direction of the worm or insect while the bill is still deep in the earth. The nose openings are placed where it is possible for the bird to breathe while the bill is deep in the mud.

Since need often seems to determine the shape of an animal's body, the woodcock's eyes are placed high above the probing bill and far to the rear of the bird's head. Even while intent on a meal the woodcock can see approaching enemies. This enables eyesight behind as well as ahead and in almost a complete circle without moving the head. The larger-than-usual eyes may be an aid for dusk or night hunting, as the woodcock is essentially a nocturnal bird.

Due to its appearance, eating habits and living places the bird has been given many names besides its own "*Philohela minor*." It is known as Big-Eyes, Bog-Bird, Hookum Pate, Wood Snipe, Big Mud Snipe, Night Partridge, Timber Doodle, and many others.

The birds are migrants as they must winter southward where the earth remains soft for their food supplies, not stiffened by frost or freeze.

One spring we were told there were woodcocks on our land by a naturalist friend. He pointed out the borings, little groups of pencil-sized holes, around the spring and its over-run to the Hazel River. I have not actually seen the birds on



Photos by L. L. Rue III

Male woodcock on singing ground.

our land though I have looked. My husband had the accidental pleasure of knowing for sure they are here.

It was early summer and he decided to clean out the unused spring so it could flow more freely on its run to the river. He worked until he was hot and tired and then sat to rest on a large stone in the little valley. He became aware that a brownish, bob-tailed bird had come fairly close and was quite intent on probing the earth. It either could not see with its strangely placed eyes or chose to ignore the quiet man on the rock. The bird bowed its head and plunged its long bill into boggy mud and pulled out a worm in almost one motion.

My husband sat up to see better, which alerted the bird and it immediately flew just over the run toward the river. My husband's pleasure in sighting the bird was greater than the pleasure of restoring the old spring. A bird-appreciative man is as strange and nice as is the woodcock! I wish I had shared the experience but even more I wish that some spring dusk I can see and hear the incredible aerial dance and "song" of the courting woodcock.

To witness the male woodcock's performance at mating time must be an unforgettable experience. Usually the male bird of any species makes the overtures to lovemaking by song, feather display, strutting and aggression, or by a dance and winged exhibit. The woodcock's courtship flight is fantastic. He cannot sing beyond a nasal "peent" which he utters on spring nights when he becomes a suitor. As a rhythmic aerialist he is a virtuoso!

The courting male chooses twilight and a grassy area. It is presumed there are females watching. Here for a short while the cock struts with drooping wings and tail spread wide. Suddenly he springs from the ground, flies around in circles, his short, stiff wings whistling as he rises higher and higher in erratic spirals. As he descends in a series of dives, a soft musical twittering is heard as the wind rushes



through the bird's outer wings and tail feathers. This is the woodcock's unbelievable lovesong. On the ground again he rests before he again struts, short tail raised, wings trailing. He is said to be a comical picture of dignity, humility and entreaty. Then he goes up into the air again on another series of spiraled heights and returns by dives with music again flowing through his wings.

The woodhens are undoubtedly impressed as soon there are nests. One male may mate with several females. The nests are simple hollows on the ground filled with dried leaves. There are usually three or four grayish-white, brownish-speckled eggs in each nest. The small number of eggs is one of the reasons the woodcocks have difficulty maintaining their number.

The mother hen incubates alone for about three weeks. She relies on protective coloration to keep her presence and the nest safe. The lines and patterns are so similar to the dead leaves that the nest is seldom disturbed. At birth the chicks are fluffy, long-billed miniatures of the adults. They grow rapidly. They can fly in a couple of weeks and are almost full grown in a month.

Toward the end of summer the woodcocks desert the low wetlands to scatter on wooded hillsides or pine thickets with soft earth under the leafy cover. Here they moult and await the time for migration which is determined by the weather. If cold weather is late in arriving, they delay their departure. The birds are in fine feather for the trip and will leave as suddenly and silently as they arrived in the spring. The bird, on home land, does not seem to be an able flyer as it quickly drops into cover but the distances covered in migration prove it to be a skilled, careful migrant that flies low and fast. Like every living creature the woodcock hopes to be where the next meal is available. There is certainly nothing *strange* about *that* characteristic of the woodcock, a *strange* bird.

Female woodcock on nest.



## But We Do Have HUMMINGBIRDS!

By JOYCE FITCHETT RUSSELL  
*Kilmarnock*

OUR first hummingbird feeder came as a stocking stuffer at Christmas time. Costing less than a dollar, it evoked anticipation for all the family of attracting a new species to our back-yard feeding station. We had, however, a six-month delay in using the little bottle.

In early June I saw the first hummer among the day lilies. Scanning the instructions on the box, I mixed one part sugar to two parts water and set it on the stove to boil for two minutes. Having tinted the solution with red food coloring, I put it aside to cool. Next I plunged the feeder into soapy water, rinsed it well with hot water, filled it and held it up to test it. I watched with chagrin as it steadily dripped. I had learned my first negative rule:

"Don't wash the feeder with detergent."

After several cold water rinses, hopefully to reduce the slipperiness, I refilled the container and hung it just outside the window where the sunlight could catch the iridescence of the birds' feathers. The dripping continued. Rule number two:

"Don't hang the feeder in the sunlight."

The clothes line, although somewhat distant, was nevertheless shaded, and here I next hung our feeder. Before the first hummingbird found it, a brisk wind had sprung up, set the bottle swaying until it fell and broke the curved spout.

"Don't hang it in the wind."

Undaunted by failure, I enlisted my son's help in repairing the damage. With his alcohol burner, he heated and bent a length of glass tubing. Then he devised a sturdy wire support to minimize motion.

Our determination was rewarded when a female hummingbird found the nectar and began coming regularly. Of course, bees and ants made a similar discovery. I countered by buying a new feeder with a bee guard. Smugly confident all my problems were solved, I rinsed the bottle and noted the graduated stopper—an improvement, I supposed. Too impatient to dry it, I filled it and replaced the old one. The wet stopper immediately slipped out and sugar water gushed. I reread the instructions.

"Dry all parts carefully."

Masking tape guaranteed adhesion, and bands of tape between the feeder and the ground somewhat moderated the progression of ants. Because we all are ardent conservationists, we distain using Chlordane as recommended to deter ants, for fear our birds may be poisoned.

Although the guard made feeding difficult, bees flew around constantly and often chased the hummingbirds away. Nature, however, has many tricks up her sleeve: A summer tanager perched on the clothes line one afternoon, watched the swarm of bees and stream of ants, and flitted back and forth for nearly an hour as he enjoyed a banquet of his favorite diet!

Despite our many feeder problems, one fact overshadows all: We *do* have hummingbirds!



# Fish A Small Stream

By BOB GOOCH  
*Troy*

THE pool ahead was a beautiful stretch of water. Except for surface ripples from the gentle rapids which tumbled into it you would never know that thin water covered the golden sand bottom. The bottom disappeared gradually as it pitched gently toward the far bank of the pool. But that part of the hole was a dark blue—deep and mysterious.

I knew it held fish.

Beautiful though it was, the pool would not be easy to fish. It was early June in Virginia. The lush vegetation which crowded the stream still retained the freshness of spring, though summer was just a couple of weeks away. New shoots of crooked alders shot skyward, some swaying over the stream seemingly gossiping with their neighbors on the other bank.

But I was equipped for this kind of fishing. By backing my wader clad fanny against the near bank I had room for a side cast, providing I didn't shoot the lure too far above the surface of the water. My ultralight spinning outfit, featuring a watch-sized reel, a light 4-foot rod and a 2-pound test line, made such a cast possible. Even in the gin-clear water the wisp-like line would be almost imperceptible. And skimming just above the surface of the water, my tiny lure would fall lightly with a minimum of disturbance.

The stream was too small to rate a name. Few people bothered to fish it, though it was reasonably accessible and frequently gave up good fish.

My lure plopped down—a little off target, but still in good water near the head of the pool and in the shady area where the sandy bottom started to disappear into the depths. I let it rest quietly for a moment or two, flicked it gently and then cranked the reel handles. Again I paused for the

A side arm cast is the only way to get a lure into water like this.



Light spinning tackle is ideal for fishing small streams.

rest-flick-reel routine.

But this time I was rudely interrupted as a slim dark form shot from seemingly nowhere and smacked my innocent lure!

I startled from my half crouched position and set the hook as a flash of silver and a geyser of crystal water cracked the tranquility of the moment.

My wand-like rod bent dangerously as the desperate fish shot toward the lower end of the pool. The reel spool slipped a couple of notches. I had it set extremely light. And then the bowed rod straightened abruptly as a good fish cracked the surface, gills flaring, and danced on its tail. There was another short run followed by a weaker run—and I reeled the fish in.

Soon a glistening chain pickerel was gracing the folds of my landing net, its own chain-like pattern mixing strikingly with the meshwork of the net. The fish was a good 18-incher—no lunker as chain pickerel go, but taken from the tiny stream it was a real prize. Cooked to a golden brown and served for dinner that evening, it would make a delightful meal.

This is small stream fishing as I know—and love it.

What is a small stream? I am sure the definition would vary tremendously depending upon who you put the question to. The thinking of a yacht owner would be vastly different from mine. But here we are concerned only with the angler's viewpoint. Let's use a fisherman's definition.

In the North a stream such as I was fishing might hold trout. They are delightful little creeks, cricks, runs—even rivers, depending upon the local terminology. They are cold streams, winding and gurgling through forests and meadows. They are a joy to the thousands of boot-clad anglers who



fish them. They are not mountain streams. Mostly they flow through rolling hill country. In the South, and throughout much of the United States, such streams are too warm for trout, but probably harbor just about every kind of warm-water fish found in the country they drain.

The stream I have in mind is too small for a canoe. Most of them traverse farming country, but also flow through housing developments, parks and timberlands. While they are free-flowing streams, most do not offer much fast or white water.

Because of the kind of country they ribbon, such streams are usually readily accessible. Secondary roads, farm roads, logging trails and other such access routes lead the angler to the stream. Major highways cross many of them, but parking restrictions may limit such access.

At first blush the insignificance of such a stream can deceive the angler. A glance at it where it flows beneath a highway bridge may convince him that it is just too small to fish. But exploring is part of the fun. A half mile downstream the character of the water may change completely with a series of shimmering pools furnishing a stretch of prime fishing water. This is particularly true if the highway crosses the stream in grasslands or meadows. A stream flowing through manicured pastures or well kept hayfields seldom offers good water or good fishing. However, once the stream leaves the open country it may pitch into a heavily forested area where the combination of flood waters and downed trees and a tree-studded shore line can work miracles



Many small streams in central Virginia hold smallmouth bass.

may be found in small streams. Large- and smallmouth bass, pickerel, sunfish, bluegills, crappie, rock bass, warmouth, suckers, fallfish and channel cats are typical of the gamesters which fin the clean waters of the little streams that I fish. In other parts of the country you might find a few yellow perch, pike, muskies or walleyes. Even the big water fish wander up small streams. On angling jaunts around the country I have encountered most of them in little waters. Fish from both lakes and rivers frequently move up into these streams. An angler working the tributaries will do business with most of the species found in larger waters.

Many of the streams I fish feed smallmouth bass rivers, and I have come to expect smallmouth action. These bass are not lunkers, but they are real scrappers in the cooler waters of the tributaries. I believe bass are more inclined to wander than are most fish.

Small ponds or lakes that drain into streams also feed them fish. Thousands of farm ponds dot my fishing country, and most are stocked with largemouth bass and bluegills. A few hold crappie. Pond fish escape periodically and take up residence in the small streams.

(Continued on page 21)



Riding the "bubble" through a deep but productive pool.

in carving out deep and fertile pools that attract and hold fish.

Beavers are attracted to small streams, and the ponds created by these busy little engineers can also furnish some unusual and exciting fishing. They soon fill with silt, though, and the best fishing may last just a few years.

One of the more intriguing aspects of little streams is the variety of fish present to belt the angler's lure. You never know until that strike comes what kind of finny adversary you will be doing battle with next.

Most of the species of fish common to the general area

There is little room for a back cast.





# PUBLIC FISHING WATERS

## COMMISSION OWNED

FISHING hours are one hour before sunrise to one hour after sunset; gasoline motors, gigging, and seining of minnows are prohibited.

Seasons, size limits, and creel limits will be as posted at each pond if different from the general state regulations.

**AIRFIELD LAKE**—Sussex County. At Wakefield, south on No. 628 to pond. 105 acres. Boats available.

**LAKE ALBEMARLE**—Albemarle County—From U. S. 250—Route 240 Junction west of Charlottesville. Take Route 690 North to Route 614, turn right to Route 675 which leads to lake. 40 acres. Boats available March-October.

**LAKE BRITTLE**—Fauquier County. East of Warrenton. Turn east at New Baltimore on No. 600 to No. 793. East

U. S. 19 west from Abingdon 10 miles, turn right on Route 690 to lake. 61 acres. Boat ramp—Special trout lake.

**LAUREL BED LAKE**—Located on the Clinch Mountain Wildlife Management Area north of Saltville. Russell County—300 acres. Access via Rt. 613. Special Trout Lake.

**LAKE NELSON**—Nelson County. East of Arrington and south of No. 655. 45 acres. Boats available.

**LAKE ORANGE**—Orange County. From Route 20 east of Orange turn south on Route 629 just west of Nasons and proceed to entrance road. 124 acres—Boats and bait available.

**POWHATAN LAKE**—Powhatan County. Turn north on No. 684 4 miles west of Powhatan C. H., continue on 3 miles to No. 625, turn west to lake. 66 acres.

**RURAL RETREAT LAKE**—Located 2½ miles south of Rural Retreat in Wythe County. 225 acres. Boats, camping available. Open in 1969.

**SCOTT-WISE LAKE**—Scott County. On Little Stony Creek approximately 7 miles south of Coeburn. 48 acres. Boats available.

# JUNE

Bay at this time of year.

## FISHING CALENDAR

JUNE 1970						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

is sunfish month in Virginia and heavy strings of a variety of scrappy species are taken from most of the state's lakes and rivers. Largemouth bass angling should be good in most lakes, especially those along the Roanoke River. Good largemouth strings also are taken from Back

Smallmouth bass are active on most of the smaller cool-water streams and offer float fishermen a last chance before low summer flows make floating difficult or impossible on many stretches of the Upper James, Upper Rappahannock, and Shenandoah.

Crappie fishing in lakes is usually good during most of the month. Catfish catches should be excellent over most of the state.

The final trout stocking of the year is completed in the better trout streams this month, providing good catches for anglers whose interest in trout extends beyond opening day.

Striped bass have returned to Kerr Reservoir following their spring spawning run upriver and are ready to take fishermen's offerings in the impoundment.

on No. 793 to lake. 77 acres. Boats available.

**BRUNSWICK COUNTY LAKE**—Brunswick County. East of Lawrenceville on No. 58 to Edgerton, northeast on No. 638 to Reedy Creek. 150 acres.

**LAKE BURKE**—Fairfax County. Between Fairfax and Occoquan east of Route 123, about 1 mile southeast of its junction with Route 645. 218 acres, boats available.

**LAKE BURTON**—Pittsylvania County. Approximately 8 miles west of Gretna on No. 799 and left on No. 800. 76 acres located on Tomahawk Creek.

**LAKE CONNOR**—Halifax County. Approximately 8 miles north of Clover on No. 746 and west on No. 603. 111 acres on Hunting Creek. Boats available.

**GAME REFUGE LAKE**—Sussex County. 45 miles south of Disputanta on No. 460, turn west on No. 602 for 5.3 miles, turn south on Forest Fire Trail #452 for one mile, then right on road to pond. 40 acres.

**FLUVANNA RURITAN LAKE**—Fluvanna County. Turn N.W. at Palmyra on No. 53 to Cunningham, then left on No. 619 to pond. 70 acres.

**LAKE GORDON**—Mecklenburg County. Approximately 4.3 miles south of South Hill on No. 1 and 58 and west on No. 664 to 799 to lake. 157 acres on Miles Creek.

**HIDDEN VALLEY LAKE**—Washington County. Follow

**LAKE SHENANDOAH**—Rockingham County. On Congers Creek approximately 3 miles east from Harrisonburg on No. 33 to sign to Massanetta Springs. Approximately 2 miles south of Highway No. 33. 29 acres. Boats available.

## COMMISSION MANAGED

**BEAR CREEK LAKE**—Cumberland County. 5 miles north of Cumberland Court House on No. 622, turn west on No. 629, one mile to lake. 55 acres. Boats available May-Sept.

**LAKE DOUTHAT**—Bath County, Douthat State Park, approximately 5 miles east of Clifton Forge. 60 acres. Boats available April-Sept. Fee Trout Lake.

**FAIRY STONE PARK LAKE**—Patrick County. Near Stuart. 168 acres. Boats available May-Sept.

**GOODWIN LAKE**—Prince Edward County. Approximately 3 miles southwest of Burkeville on No. 360, north 1 mile on No. 621, then west 1 mile on No. 629. 10 acres.

**HOLIDAY LAKE**—Buckingham County. Approximately 10 miles south of Mt. Rush on No. 24 to sign leading to lake. 145 acres. Boats available May-Sept.

**HORSEPEN LAKE**—Buckingham County. Approximately 3 miles south of Buckingham. 20 acres.

(Continued on page 25)



THE mountain laurel is blooming . . . time to climb the Red Oak. The first week of June each year finds us on the trail winding up the back of the mountain. We leave the dusty country road for the meadow, purple with Robin's plantain. Mountain laurel is everywhere, massed in the open, half-hidden beneath the pines. Its cupped organdy-thin flowers cluster, pink and white, over dark shiny leaves. This is not the English laurel of story and song, but our American laurel, belonging to the heath family.

Wild flowers deck out the path: the flat-topped yarrow, a legend for its tonics and love potions; the creamy flowers of tall poke milkweed, the blue chicory. We walk eyes-down, not to miss a single blossom of creeping partridgeberry, four-leaved loosestrife or bristly sarsaparilla.

Our walking sticks sink into the softness of last year's leaves as we enter the coolness of the forest. Ferns grow lush and tall on the banks that slope upward on either side. The collectors among us pick up bits of thin white flint, bleached wood and copper-veined stones. Some sample sourgrass,

yellow locust. Nature works slowly, replacing incessantly. Sudden change is man's doing.

The prickly pear cacti grow out of the rock, looking for all the world like disembodied feet. They say its soft, feathery spines have a devil. Do not disturb the devil of the cactus. Its roots will crumble the rock, changing it to fertile soil. A more flexible, friendlier growth will follow. Indian tobacco grows through many of the hairline cracks. Did the cactus make way for you?

I idly scrape the gray, flaky lichen, which covers most of the granite surface. Its tiny fingers even now are weakening the stone. That innocent-looking lichen, a co-conspirator with the cactus, is another member of nature's wrecking crew. Does the rock realize she's mothering traitors?

The woods come alive when we stop chattering. Squirrels, chipmunks scamper in the clearing. The bees work on this season's clover honey. I try to identify the birds by their calls: purple grackle, indigo bunting, and goldfinch. The spirit of the mountain creeps over me—of life persisting

## When the Mountain Laurel Blooms on RED OAK MOUNTAIN Rappahannock County, Virginia

By MARY R. MILLER  
*Flint Hill*



Leonard Rue photo

peppermint or break a sassafras twig to taste its spicy flavor.

Where the granite flattens and covers the hillside, we stop to rest, three hundred feet below the crest. The forest encircles the clearing. The land slopes gently. We're held in the palm of a giant hand, close to the life of the mountain. The trail winds above us and curves below us. Could I paint this lovely scene and store it permanently on a back shelf of my mind? How many shades would I need? Emerald for the pines with lemon tips, black-green overlaid with frosty white for the spruce, plus blue shadows splashed with sunlit yellow. The butterflies will use all the colors.

A curious grosbeak flies near, interrupting my daydreaming. My eyes follow his flight upward. There's a cloud shaped like a bird's nest. I watch it and it shreds apart. Serenity flows over this protected spot under the windswept top. Tensions fall away. Time expands. What's the rush?

These woods were here when pioneers settled the lands below. Huge red oaks stood here then. That they're gone is an indication of the shortsightedness of men. Yet other trees stand in their place: poplar, ash, white pines and

through the change. Nature is softening this craggy hillside. Is this, then, the caption under my picture: That life is indestructible, adaptable, persistent?

Our resting ended, the treasures are gathered from the rock. The hikers pocket the fragments of arrowheads, the puff-balls, the quartz picked up along the way. We buckle on our canteens and start up to the windswept crest fourteen hundred feet above the dusty country road where we began.

The trail grows steeper and steeper. We're not winding now. We put one foot before the other. Through the abandoned orchard, we climb straight up. Breathe deep. One last spurt of energy and we're on top.

A magnificent panorama of mountains, farm lands and valleys stretch, mountains folding before us into mountains, into mist. We're dwarfs in the vastness.

The day will soon be ended. My pockets are empty, I have nothing to hold in my hands. Yet I'll have to keep a picture, not of the view from the crest but of the scene from the sun-warm rock, that protected place where I felt, for a moment, a part of the continuing life of the Red Oak.



# The ART of FISHING With One Pair of Sneakers And a Boy's Sense of Wonder

By RON STEFFEY  
*Staunton*

I RECENTLY took a couple of 12-year-old boys camping during hunting season and the conversation around the crackling fire in the cabin turned from hunting to fishing, much to my delight. The boys described their styles of fishing, and I listened intently to their stories of perch and bass. With a twinkle in my eyes, I broke into their descriptions after one boy described his trip down the lazy Shenandoah for smallmouth and another found delight in his dad taking him on the first day of trout season to a local stream that saw trout only one week of the year. Each boy in the cabin seemed to sense something extra in the sound of my voice for they suddenly quieted and stopped munching their potato chips.

"Sometimes I laugh at the majority of first day trout fishermen as they prepare their heavy armor for battle at 12:00 noon," I began. "The whistle blows and off they plunge into the midst of battling each other's lines for position. Ha, they need to install parking meters beside the forest roads."

"What's wrong with that?" one boy quipped.

"That's fine, but decide for yourself in a few minutes after giving me a chance to describe another way. I still fish the same old style my childhood gang developed. It seems like yesterday that a carload of fellows and myself attired ourselves in the best cutoff shorts and headed in a beat-up Dodge to the gorge.

"For years little was ever mentioned in State fishing circles of the rugged and virgin stretch of water known locally as the gorge. Located approximately twenty (20) miles from Staunton in the northwestern tip of Augusta County, the gorge lies entirely within the confines of the George Washington National Forest and just a mile away from the new Todd's Lake. Camp Mayflather, Girl Scout camp, surrounds the lower portion and the Staunton dam and recreation area form the upstream terminus.

"Like I was saying, we were bent on decreasing the population of trout. Our bait consisted of a can of worms, a jar of grasshoppers and crickets, a jar of salmon eggs, a few hand tied flies and a small spinner. No shirt was worn.

The beaver dam pool on North River.



A friend, Tom Hodge, fishes in the style described by the author.

Sneakers were used to wade because of the slippery rocks. Whenever a water obstacle confronted us, we just waded right through. Conventional waders were too cumbersome. An old school bag took the place of a tackle box, and all those artificial lures seemed dishonest to us."

"Gosh, you ought to see all the gear my father bought me. It makes me feel like a knight or something," chimed Chipp.

"Chipp, I think you hit it right on the head of the nail. We really felt like great adventurers every time we went fishing with just those holey sneakers and a love of Nature. We would drive the six short miles from Staunton to Churchville on Route 250 and turn right for Mt. Solon. Each time we passed Natural Chimneys, each one of us would strain to see them and almost shout out loud, 'We city fellows have invaded the country.' At the Girl Scout camp the mountain road changed into a gravel scrub board. We had to park the car at the top of the incline. A tedious descent down a narrow path to the white water below opened up a fresh, rugged, exhilarating day of adventure. Even today I feel a sense of freedom and escape as my way is made down the trail.

"The stream cascades over and around boulders and careens time after time against the rocky walls of the mountain. We always took our mask and flippers in case the fishing slackened. Every pool and hole throughout the gorge was explored underwater. The quiet beauty below the surface added a new dimension to North River. One of the most beautiful spots centers around a pool where the water explodes through a solid rock channel and over a large boulder into a circular pan. The pool remains about nine feet deep year round. At the bottom of it a small ledge provides a haven for lunker trout."

"What's a lunker trout?" Richie, a budding fisherman, asked.

"Well, Richie, it's a fish that plays it cool for a few years just waiting for someone like you to catch him."

"Ah, you mean a whopper, don't you?" mused Richie.

"Right."

"Tell us some more," a third boy, Stevie, blurted out.

"Sure." I could feel they were reaching for the bait. "Just around the bend from the pool, the stream journeys through a steep canyon. The left side has a series of ledges jutting aloft. A service trail meanders along the canyon wall up high. We always climbed to the protruding ledges



above and sat under the shade of a scrub pine on the edge. It was so cool. You just felt like being quiet. The gorge, the mountains, and the river far below seemed so beautiful that maybe it was all a dream. We used to dream big dreams up on that ledge. Funny, many have come true."

"Which ones came true?" Chipp asked excitedly.

"We'll talk about that after some hot chocolate."

"Don't stop now," begged Richie.

"Since those carefree days, I have taken hundreds of people back on hikes or fishing to this part of the gorge. Each one sits quietly on the ledge with his own thoughts as we did just ten years ago . . . the gang. You fellows belong to my adventure club, the Curiosity Club. All of us are going up there for a hike next month. If some of you like the place, we'll go fishing in the spring.

"Farther up the gorge a small natural dam deepens the stream. Here it forms a stretch of smaller pools continuing without a break for at least half a mile. This long section provided us boys with the perfect ice hockey rink in the winter. Only until one of us fell in and we had to build a fire on the ice to dry the clothes, did we realize any dangers in the gorge. At this pool in the dead of summer, a fellow can plunk his line out and snooze on the bank. This was fondly called the relaxin' hole. The other terrain was all sweat. It was at this relaxin' hole one morning early that I was fortunate enough to see a newborn fawn and her mother refreshing themselves with a cool drink of water.

"It was at this same pool, also, on a scorching August day that I lazily floated a dry fly down to the entrance of the pool and literally tied into the fightingest fish ever caught by me in the gorge. Believe it or not, it was a sucker. He broke the surface four times."

"I always thought they were some kind of lazy," Stevie added.

"So did I, Stevie. Well, in late July or early August live field grasshoppers provided a sight to behold. They drove the rainbow and brook trout wild as they floated kicking. The trout at this time also hungrily devoured tiny snails on the stream bottom. We could never imitate or use those small snails.

"Small spinners did just fine in the fast water. When worked with a twitch, you could be assured of a lively explosion.

"We always used No. 10 hooks."

Fishing the falls at the foot of the circular pool.



Looking down from a rocky ledge into the North River gorge.

"Boy, they're pretty small, aren't they?" questioned Richie.

"Sure, but it certainly provided more of a thrill. We lost quite a few trout learning to hook them, but once the knack was learned the sport was worth it.

"Traveling on upstream beaver formed a long narrow pool. We used to sneak up there in hopes of stealing a glimpse of one of the workers. One day, however, I was lumbering up the bank near the beaver dam and ran into a once-in-a-lifetime scene . . . two beaver busy at chipping away a ring on a tree. At my entrance, they crawled to the stream and slapped a warning signal that sounded like a sharp .22 pistol shot.

"Above this pool the river bends around to whip against a solid rock cliff. Beneath a log on the bend my grasshopper or salmon egg always found its mark . . . a beautiful strike . . . the battle was on.

"At this point upstream and over two miles from our origin, other fishermen rarely ventured. All evidence of human life seemed to vanish. Everytime we waded into this quiet area, a funny feeling overcame us."

"What was up there?" Stevie quietly asked with eyes wide open.

"Once, I had gone farther upstream than usual and had to return at dusk. While wading the quiet pools in those sneakers of mine, something splashed gently behind me. Since there were seven more fords, my pace quickened. The noise continued intermittently behind me. While in the middle of a wide ford, my nervous right foot slipped on a rock. My whole body submerged for a moment in that icy spring water, and floated off downstream. A submerged boulder stopped my tumbling. The noise was all but forgotten in the mad splash. When the fellows back at the car asked what my bath was all about, my reply was just a nod. They wouldn't have believed me."

"Did you have any more neat adventures in the gorge?" Chipp asked.

"There were many. Just this past summer a friend and myself were walking down a grassy service road after a successful day of fishing when he suddenly yelled and jumped into the air. That yell saved me from certain serious trouble. When he yelled, a copperhead was about to strike. He did strike, but its aim was two inches off.

"The fishing in the gorge has never failed to produce . . . even in the dead of summer or winter. We learned something called patience. If you fellows are willing to learn, I'll be happy to take you to my secret spots."

"When can we go?" Stevie yelled as he jumped up from the rug.

"Got a pair of old sneakers?" I noted with a wink.

## 27 Year Veteran Takes Over As Warden Supervisor of J. E. B. Stuart District



EDGAR LEMONS

Warden Edgar T. Lemons of Collinsville, Henry County, has been appointed supervisor of the fifteen county J.E.B. Stuart District. Lemons joined the Commission of Game and Inland Fisheries in 1942 and has served in the Law Enforcement Division ever since, with the exception of three years of military service during World War II. He was appointed Area Patrol Leader four years ago, and while so serving was awarded a certificate of merit by the Commission's Game Division for his outstanding contributions to the development of wildlife management programs at Philpott Reservoir and Fairystone Farms Wildlife Management Area.

Remsen Studio photo, Martinsville

## Francis' Retirement Ends 35 Year Career

JOE FRANCIS

Joe W. Francis of Stuart has retired as Supervising Game Warden of the J.E.B. Stuart District, a position he held since 1955. He joined the Commission of Game and Inland Fisheries organization as a game warden in 1935 and at the time of his retirement he had more years of service in the Commission's Law Enforcement Division than any other employee.

Commission photo by Kesteloo





## VIRGINIA WILDLIFE

# CONSERVATIONGRAM

Commission Activities and Late Wildlife News . . . At A Glance

MUSKIES REARED AT ELM HILL. The Commission of Game and Inland Fisheries will concentrate on raising muskellunge rather than northern pike in its large rearing pond on the Elm Hill Waterfowl Refuge near Kerr Dam this year. Northern pike have successfully been reared at the facility for the last three years by placing adults in the pond during the early spring and allowing them to spawn naturally. Northerns are relatively easy to spawn and rear in hatcheries, but fisheries technicians haven't had such good luck with the muskies. If the natural pond rearing system works with them, we can raise the number of northerns we need for stocking in the hatcheries," he said. Up to 75,000 northerns 8-11 inches in length have been produced in the lake using this system.

Eight pair of 15-18 pound adults from the Commission's Buller Fish Cultural Station were put into the pond in early April. The young and adults are to be recovered by draining the pond and hauled by truck to various stocking sites around the state. The 9 to 11 inch pike will be released into the James, Shenandoah, Rappahannock, New and Clinch Rivers plus Smith Mountain, Claytor and various state lakes this year.

Northern pike have done well in some small- to medium-sized lakes while muskie catches have been increasing from Smith Mountain and Claytor Lakes and the James River, with a few reported from the Shenandoah. Many reports are being received of sub-legal specimens from waters that have been stocked, indicating that there are more to come this fishing season or next.

TWO DAY PHEASANT SEASON APPROVED FOR VIRGINIA. Virginia nimrods will get their first taste of pheasant hunting during a two-day pheasant season for the state this fall with a daily bag limit of one cock bird. Pheasant hunting will be allowed all over the state on November 16 and 17, the first two days of the deer season. Although 10 years of stocking pheasants throughout the state has been only moderately successful to date, game biologists feel that an open season on male pheasants will not be detrimental to the program and may actually help the birds become established.

"First of all," said Game Division Chief Dick Cross, "pheasants are a polygamous species, with a ratio of one cock bird to each 7 hens or so being sufficient for satisfactory breeding. Therefore, an almost unlimited number of cock birds may be taken without any permanent effect on the population, much like the harvest of buck deer. Furthermore, a sex ratio of one to one during the breeding season has been found to lead to harassment of the hens during incubation and generally lowered production. Thus, a harvest of some cock birds may result in more and larger broods in the spring."

The season is also calculated to provide valuable information on the distribution and abundance of pheasants in the state. All birds will have to be checked like turkeys at regular game checking stations, and this will pinpoint where they were killed plus give a count of those bagged. Pheasants have been stocked in three-fifths of Virginia's counties at numerous sites, and regular census techniques are not considered adequate to keep up with the birds' survival.

Sportsmen and game managers alike have expressed concern about the number of hens that may be shot accidentally, but experience in other states indicates that a relatively small number of hens are actually killed in such a season. The cock birds removed in the fall will make room for more hens to be carried through the winter, resulting in a greater number of nests in the spring.





Nodding ladies' tresses. Below: Yellow fringed orchis.



**W**ILDFLOWERS come in a wide variety of shapes, sizes, colors, arrangements, and they grow in almost any place imaginable. Our entire wildflower family is composed of many smaller families of wildflowers. The orchid family is one of the most beautiful and, without doubt, one of the strangest families in the wildflower world.

Orchids also have their own individual soil preferences—the yellow fringed orchid can be found growing in damp soil along mountain streams—while the showy orchis and the yellow lady's-slipper are fond of rich woods soil. The pink lady's-slipper has a liking to the soil of sphagnum bogs, and mixed coniferous and hardwood slopes.

Orchid flowers are specially constructed for insect pollination. There are three petals—two are lateral; the third one is shaped into a prominent lower lip. The duties of this lower lip are to secrete nectar and to attract insects. This lip is especially noticeable on the lady's-slipper orchids.

Such is the beauty of woodland orchid that passersby are sometimes faced with the temptation of picking the flower or uprooting the entire plant, in hopes of it growing in their backyards. Orchids grow very slowly in the wild and they are difficult to transplant. For these reasons orchid flowers and plants **SHOULD NOT BE DISTURBED!**

Orchid plants bloom from early May until mid-October. When the flowers are finished blooming, they wither. Then the flowers that have been properly fertilized will set seed pods. Lady's-slipper orchids have one seed pod, while yellow fringed and other orchids that have numerous flowers on a single stem will also have many small seed pods.

The following paragraphs describe six species of wild orchids.

#### SHOWY ORCHIS

This orchid is one of our smaller species. Although it may be small in size, it is large in loveliness. Its bi-colored flowers of rose and white adorn the forest in May. The lower lip is very white. The rose-pink hood consists of sepals and lateral petals. Small green bracts are integrated among the flowers. The waxy oblong leaves are dark green and are attached to the stem at ground level. The flower stem is four angled and rises from a fleshy fibrous rootstock. The flowers are arranged alternately on the stem and are usually 3 to 5 in number. Showy orchis blooms about the same time as the pink lady's-slipper.

#### PINK LADY'S-SLIPPER

The wooded hillsides would not be the same in spring if the pink lady's-slipper would pass from their slopes. It is one of our most common woodland orchids, and therefore it is the best known.

The flower is unusually fabricated. The sac-like protrusion is actually the lower lip. A slit in the "sac" allows the bees to enter the flower. Its color is usually medium to dark pink (there are some exceptions where flowers are almost pure white). A network of purplish-pink veins graces the outside of the flower. The stem and the leaves are covered with many fine "hairs." These hairs are characteristic of the lady's-slipper family.

#### YELLOW LADY'S-SLIPPER

The yellow lady's-slipper is even more exceptional than its pink cousin. The yellow "pouch" is hollow inside and readily resembles a Dutch wooden shoe. The inside of the "pouch" is dotted with reddish-maroon spots. The 2 lateral petals are yellowish-brown in color and are very oddly twisted. Each leaf is fastened alternately and opposite on the stem. The elongated leaves are deeply scored with veins throughout



## WILD ORCHIDS

By KEN CALNON  
*Halifax, Pennsylvania*







Left: Showy orchis. Above: Purple fringed orchis.  
At bottom of page, left: Pink lady's slipper; right:  
Yellow lady's slipper.

their entire length. The complete plant is tall and graceful.

These orchids usually grow in colonies. This past spring I found a nice sized colony growing on a slope of mixed hardwoods. A total of 32 plants were blooming! This was a wonderful sight to behold. In early September I returned to the colony, and found 11 plants had set seed pods.

#### YELLOW FRINGED ORCHIS

Bizarre would do quite well in describing this orchid. It is indeed a strange formation. The flower raceme is packed with many small flowers. The lower lip of each individual flower is strangely "fringed." The lateral petals are cup-shaped. Secured to each flower is a  $\frac{3}{4}$  inch spur that projects along the smaller flower stem. Small bract-like leaves clasp the stem on the upper section, and two large leaves are attached near the ground. Yellow fringed orchis can be found growing along the banks of mountain trout streams, springs or in damp roadside ditches.

Near a mountain spring, I found three of these graceful orchids in full bloom. However, it was dusk and too dark for photographs. Two days later I returned to photograph them, and I found that the deer had eaten 2 of the flowers. Luckily, they hadn't touched the best specimen. I did get some good photographs.

#### NODDING LADIES'-TRESSES

This orchid is one of our latest blooming species. With its relative, the hooded ladies'-tress, it can be found in bloom to mid-October. The flowers are spiraled around the main stem in single or double spirals. Its small white flowers hang downward as if "nodding." This species is the only member of the ladies'-tresses that nods. The lower lip is sharply bent, and the lower edge is lobed. Above the lip are attached 2 white petals and 2 white sepals. There are only very small leaves fastened to the upper stem, but 2 slender leaves—narrower at their bases—are secured to the stem near ground level.

#### PURPLE FRINGED ORCHIS

It is early summer when the purple fringed orchis raises its feathery petals above its favorite haunts. A wet area that I know hosts 5 of these lovely plants—their purplish-pink flowers sway gently in the summer breeze on the ends of their long stems. The plant is rather "husky" and about 2 to 3 feet tall. The larger leaves are near the ground. The lower lip is fan shaped and is divided into 3 parts. The largest segment is in the center. The outer edges of each division are deeply "fringed." Two lateral petals and a sepal of purple are fastened above the lip.





# "It's An Egret, Sir!"



By STEVE PRICE  
Clemmons, North Carolina

Photo by Steve Price

**"I**T'S an egret, sir, an American egret."

Five years ago I heard those words, from a park ranger in Georgia's Okefenokee National Wildlife Refuge. I had gone there to photograph alligators but was entirely captivated with the grace and beauty of the new white bird whose name, I had just learned, was *Casmerodius albus egretta*, the American egret.

Once called the "long white" by Florida plume hunters at the turn of the century, the American egret is one of nature's most beautiful birds. From the point of its yellow bill to the tips of its black feet, the American egret is a

picture of elegance. The long slender neck and the small compact body are covered in flowing, snow-white plumes. The plumage extends far beyond the bird's tail in the breeding season, and so enhances the bird's beauty that it nearly caused its extinction.

The slaughter of American egrets actually began in the 1840's during the time of naturalist John James Audubon, but some of our most accurate records date only to the early 20th century.

In 1903 the price of plumes was \$32 an ounce, making them worth about twice their weight in gold. During a single auction in London at this time, 1,608 packages of egret plumes were sold. A package weighed 30 ounces, making for a total of 48,240 ounces. Since four birds were needed for an ounce of plumes, this means approximately 192,960 egrets were killed—all for the purpose of adorning ladies' hats. The birds were killed during the nesting season when the plumes were the most elegant, so we can assume two or three times that many young were left to die in nests.

Members of the millinery trade responsible for obtaining the plumes circulated the story that the feathers were shed by the birds, and that hunters simply gathered them from the ground. Many people believed this, not realizing that only a very, very few feathers are actually lost by the egrets.

The egret slaughter parallels in some ways the killing of the buffalo in that hunters showed no concern for future generations. Audubon writes of one hunter, who, offered a double barreled shotgun for "100 white egrets fresh killed," brought back nearly double that and would have shot more, but he "became tired of shooting them." Other hunters

The author photographing the egrets.

Photo by Betty Knight





simply wounded an egret, then tied it to a tree and waited nearby as its fearful crying attracted other birds.

The senseless killing ended only when the National Audubon Society began a campaign to stop plume hunting, and actually created a world-wide sentiment against the wearing of egret feathers. Today, thanks to this massive conservation effort, the American egret ranges over much of the swamp and marshland of the East and Gulf coasts, as far south as Colombia, South America, and as far north as New Brunswick. But it is still a shy bird.

I discovered this during my first attempt at photographing the bird in the Okefenokee, and realize it again each time I try to observe it at close range. Once the birds get over their initial fear, however, they don't seem to mind strangers who move slowly and carefully among them.

This was true for me during a trip I made once to St. Andrews Presbyterian College in Laurinburg, North Carolina, to photograph egrets. The college stands on ground reclaimed from a swamp, but much marsh and jungle-like terrain still surround the campus. As my companion, Miss Betty Knight of Laurinburg, and I broke carefully through the dense brush surrounding the birds' feeding grounds, a flurry of wings through the trees ahead told me we had already startled one egret. But as we crawled on hands and knees through the mud and decaying vegetation, we discovered three more of the white birds still feeding quietly in the brackish water.

Each turned to look at us as we crawled to within 30 feet of them, but they seemed to sense we meant them no harm and they resumed their feeding without another glance at us. We watched them for nearly an hour, walking openly to within a few feet of the birds, and never once did they give us a second glance.

Egrets eat small fish, frogs, snakes, crayfish, insects and some vegetable matter. The birds, with neck curled back in a sliding S, and wading slowly and deliberately on their black, toothpick-like legs, watch the shallows for the movements of their prey. Then, suddenly, the neck arches downward and the thin, rapier-like bill spears another food morsel.

Betty and I once saw an egret perform a dancing ritual after spearing a fish. The bird swallowed it, then threw back its head, began flapping its wings and ran back and forth over the ground. It stopped for several seconds, then ran flapping its wings until it had returned to its original



Photos by S. Price

American egret stalking through the marsh.

position on the beach. Soon it began strutting along and gurgling contentedly as if showing off its accomplishment.

We photographed the egrets at St. Andrews in the summer, during which the birds were not nesting. At night they simply roosted in trees. The nesting season runs from about January to April, with three to five pale blue-green eggs laid. The nests are rather flimsy stick platforms, located in dense brush or trees. The young are born after three to four weeks of incubation.

The young birds are partially covered with long white down, and the bill and feet are light green with slight tinges of yellow. The beautiful white plumage does not appear until about January of the following year.

I was visiting Florida's Everglades National Park when I saw my first baby American egret. Perched precariously in its frail stick nest atop a mangrove tree, it seemed like a hopelessly lost little ball of white fluff. A stranger noticed me watching the young bird with rapt attention, and he asked me what kind it was.

I was able to repeat the same words the ranger had told me years before: "It's an egret, sir; an American egret."

An egret stalks its prey and takes wing when it has eaten its fill.





# NIGHTHAWKS AND WHIPPOORWILLS

By WALLACE OBAUGH  
*Hinton*

ONE day toward the last of August, in the first half of twilight, I saw 25 or 30 nighthawks in their circling feeding flight over Harrisonburg's City Park. A few days later a neighbor reported a flock of several hundred, also feeding, above his lawn and garden. On September 3rd I saw another small company winging its way southward, and on the 5th another neighbor saw a southbound group. These migrants were the first of their kind I had noticed near Rawley Spring, and other residents I have asked make the same observation.

Nighthawks—we called them bullbats—were among the feathered friends of my childhood when we lived in a small town surrounded by farmland. By moving just ten miles west I left their range and came into that of the whippoorwills. These bird cousins originally lived in the same territory, and in the broad sense they still do. But as the forests were cut down the nighthawks stayed in the clearings, while the whippoorwills retreated with the re-

keeping. There in the flickering shadows the eggs, brooding bird, and young are almost invisible.

The nighthawk likes to live in the sunshine. In the old days the favorite site was the top of a cliff, but any area open to the sky was acceptable. With the coming of civilization they took to housetops, and found the flat gravelled roofs of schools and industrial buildings just about perfect. Here they were safe from ground-prowling predators, and the presence of humans discouraged raids by crows. They soon had prosperous colonies in every town and village.

Nighthawks feed in the manner of shallows, cruising about and darting off at all angles after insects. Their wide gaping mouths serve as scoops or seines. Whippoorwills usually rest on a tree limb, sallying out like flycatchers to pick up any prey that comes near, but they adapt their way of feeding to the situation. In general, whippoorwills feed near the ground; nighthawks, higher.

Both birds are among our best allies in the everlasting



A whip-poor-will on the ground. The white on its tail feathers identifies it as a male. Opposite page: The chuck-will's-widow is commonly called "whip - poor - will" throughout the South.

Leonard Rue photo

ceding woodlands. Each bird accepts the edge of the forest as the boundary between its summer home and that of the other.

The separation started early. Thoreau wrote in his Journal (June 11th, 1852): "The whippoorwill suggests how far asunder are the woods and the town. Its note is very rarely heard by those who live on the street, and then it is thought to be of ill omen. But go into the woods on a warm night at this season, and it is the prevailing sound. It is a bird not only of the woods, but of the night side of the woods."

There are other examples of the same nature. The pileated and ivory-billed woodpeckers are much alike, but the pileated thrives in cutover woodlands while his cousin is on the edge of extinction. Crows are more than holding their own, but the closely related ravens exist only in the wildest and most remote regions. Why should the cutting of the woods be good for one species and bad for another?

Each case has its own reasons. In this one the key is in the nesting habits of the two birds. Whippoorwills are finical about their surroundings. They want to be in the woods, but near a clearing. There must be a moderate amount of undergrowth. They like to nest beneath a tree, but under the fringe of its branches. There is no real nest; the bird selects one brown leaf out of a billion and sets up house-

war against insects. Bulletin 176 of the U. S. National Museum quotes from E. H. Forbush: "While I slept unsheltered nightly for a week in the Concord woods, rolled in my blanket, with only a head-net hung to a branch overhead to protect me from mosquitoes, I noticed each morning upon awakening just before daylight that something fluttered softly about my head. The sound was like that produced by a large moth, but soon I heard something strike the ground a few feet away, and then a well-known chuck convinced me that my visitor was a whippoorwill. The bird came nightly while I remained in the woods, and each morning before daylight it flew around my head until it had caught all the mosquitoes there."

The same source quotes Forbush as saying he had found 500 mosquitoes in the stomach of one nighthawk, and the U. S. Biological Survey as reporting over 300 in one bird. Along with mosquitoes, both birds eat almost any other insects they can find.

In spite of their usefulness they have suffered (nighthawks especially) from human ignorance and indifference. Here is another quote from Bulletin 176: "Today we do not think of the nighthawk as a gamebird, yet 60 years ago" (the bulletin was published in 1940) "large numbers of them were killed by gunners and sportsmen, especially in



the Southern States. M. G. Elzey, writing on September 18, 1876, stated: 'Bull-bats (nighthawks) are the best of the minor game of this country for sport or table; have been very abundant and in superb condition here (Blacksburg, Virginia) for the past two weeks. I have killed several hundred. On one occasion took out 28 cartridges and brought in 23 birds besides 2 which fell out of bounds and were recovered by boys. Killed 17 in succession. The bats are quite as fat and better game than the reed birds.' Dr. E. Sterling (1885) wrote: 'Their rapid and irregular flight makes them a difficult mark for the young sportsman to practice on, as he never fails to make a target of them when the opportunity offers. I can now understand the object for which this bird was created.' Dr. F. M. Chapman (1888), writing of conditions at Gainesville, Fla., stated "'Bat" shooting here is a popular pastime, great numbers being killed for food, and in August, when the birds have gathered in flocks, favorite fields may be occupied at nightfall by as many as a dozen shooters.' Stockard (1905) lamented the fact that the birds 'are foolishly slaughtered by pseudo-sportsmen who shoot them merely to watch the bird's graceful fall or to improve their skill as marksmen'."

Nor is that all. Bounties have been paid on them! Let me quote from Bulletin 176 just once more: "According



Commission photo by Kesteloo

to B. H. Warren (1890) the Pennsylvania Game Commissioners, in their interpretation of the Scalp Act of 1885, took the stand they were obliged to allow bounty on all nighthawks because they were known as hawks."

At the beginning of this century laws and educational work by conservationists began to slow the senseless slaughter. The Migratory Bird Law of 1913 gave the nighthawk federal protection. More people are learning to appreciate the value of these feathered insect bombs, but there are still those who use them for shotgun targets. The mosquitoes should chew them up.

Much of the trouble was due to the inaccurate names given the birds. They are not hawks. Instead of the strong curved beaks of the raptors, their bills are extremely soft and short. Rather than talons, they have claws too weak for grasping. In flight they may resemble some of the smaller hawks, but that is all. To call them bats is more absurd yet, but bullbat is one of their common names. Audubon called them Virginia bats. He knew better, of course, but used the name in use at the time to identify the bird to his readers.

Even the scientific name of the family—Caprimulgidae, goatsuckers—is ill bestowed. The European member of the clan has long been accused of pilfering goats' milk. No one

has ever caught him in the act, but isn't his wide soft mouth fitted to the purpose, and isn't he often seen flying over pastures? It stands to reason. So for the want of a little observation and common sense, a whole family of useful birds was given a bad name.

When the colonists saw nighthawks feeding over their fields at twilight, and later in the evening heard the calling of whippoorwills from the shaded edge of the clearing, they thought it was the same bird. It was not until the early 1800's that Alexander Wilson pointed out the difference. They really aren't that much alike; an easy mark of identification is the showy white wing bars of the nighthawks. The trouble is that whippoorwills are seldom seen, and almost never in good light. You see them, if at all, at dusk and in shadows. It is small wonder they are believed to be of ill omen. There are still people who think of them as messengers of death.

The song of the whippoorwill is a monotonous repetition of its name, preceded by a soft chuck that carries only a few feet. The accent of the high-pitched phrase is on the last syllable. It does sound like "whip poor Will" if you think the words, but can be translated into anything. From a distance the sound strikes the ear softly, with just enough echo of mystery to be intriguing.

Close up it is a strident, penetrating, seemingly endless clamor. John Burroughs once counted 1088 calls from one bird "with only a barely perceptible pause here and there, as if to take breath." The bird sings from dusk to dark, with a corresponding period at dawn; under the full moon he sings all night.

Nighthawks are less vocal. They have several notes and calls, but their best gift to music is the booming sound they make as they brake their dives. This is caused by the rush of air through the big wing feathers. Like the drumming of grouse, which is produced in a similar way, it is one of the deeper bass notes of nature.

This steep dive with its terminal boom is what we notice most about nighthawks. Their other aerial maneuvers are equalled, say, by those of swifts and swallows. The booming dive is something else. It is usually performed in the spring for the purpose of impressing girl nighthawks. More rarely it is seen and heard as the birds gather for their annual trip south.

As noted in the first paragraph, the passage of nighthawks over Rawley Spring in the fall migration was unusual. It followed an unusually wet and stormy summer, including the hurricane Camille. Could the change of weather and of the migration route be due to the same cause? I'm just asking.

Nighthawks winter in South America, with stopovers in Florida and other parts of the southern rim of the U. S. The migration period extends through September. The several subspecies nest in different regions, but apparently mingle in their winter feeding grounds. They come back to Virginia in April.

Whippoorwills winter in the southern U. S. and Central America. They go and come at about the same times as the nighthawks.

Inquiries indicate that nesting populations of nighthawks in Rockingham county have been low for the last few years. I know there are less whippoorwills around Rawley Spring. I hope this is a local condition or the low point of a cycle, and not due—as is the decline of some other species—to the poisoning of their environment with chemicals.

# FOLLOWING BOX TURTLES

By ROBERT H. GILES, JR.  
Associate Professor  
Department of Forestry and Wildlife, V.P.I.



Leonard L. Rue photo

**B**OX turtles abound in Virginia and nearby states. This omnivorous animal, although abundant, is quite poorly understood—that is, we do not know enough about its feeding habits, how far it moves, its home range and whether it defends a territory (as higher orders of animals do), what are its beneficial and harmful effects, what is its rate of reproduction and population turnover, and what are its interactions with other animals—either in supplying food or in being a host for parasites or disease.

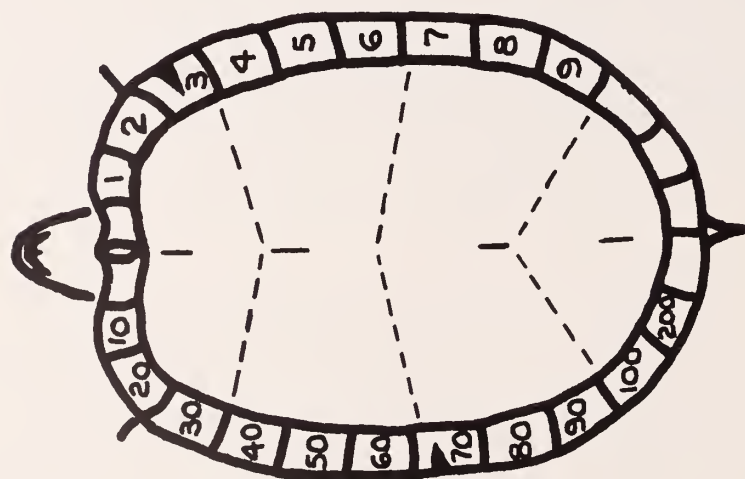
The animal is an excellent one for uncovering basic ecological principles besides being an interesting and intriguing subject for the above questions.

I have seen boys very inhumanely treat box turtles. Scientists studying animals diligently try to molest animals as little as possible when working with them. Marking turtles

mate population sizes or densities. The equation  $N = \frac{Mn}{m}$

is used. The size of the population ( $N$ ) is estimated from the total number of all previously marked turtles on your study area ( $M$ ), multiplied by the number collected on a field trip ( $n$ ), all divided by the number of marked ones you found on the field trip. Suppose over a 3 week period you had marked 48 turtles over a big area. If on a field trip you searched and found 16 turtles, 5 of which had been marked by your notches before, then your population estimate would be  $N = 48 \times 16/5 =$  about 154 turtles on your study area. By making periodic surveys you could watch changes throughout the year, estimate densities, attempt to mark 100 percent, and gain insight in the different ability of various

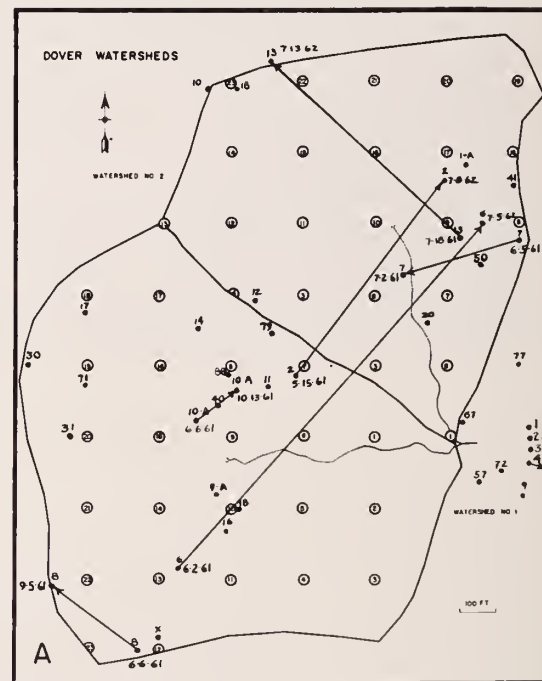
Below: Box turtles can be permanently marked for future identification by making a small notch in the scutes or edge plates of the under shell. A turtle marked as shown would be "number 73." Right: Locations of box turtles found on a study area. Paths, direction of movements, and activity were noted to determine effects of an aerial application of pesticide to a forest.



is a requirement for most field studies. A method is shown below for such marking that causes the turtle no pain and provides a permanent mark. With a sharp pocket knife or a 3-corner file the scutes or edge-plates on the bottom of the turtle can be marked. With only three marks, one for hundreds, one for digits, and one for units, up to 299 turtles can be marked as shown. A more elaborate system is used for marking up to 999 with three notches.

Studying turtles as a hobby, as a school class project, or seriously as an ecological problem, can be interesting and profitable, particularly if what is learned can be told to others.

Marked animals are used by wildlife managers to esti-



land areas to support forms of wildlife—no matter what the species.

By having numbered turtles you can identify each one and by keeping careful field notes actually draw the paths of turtles throughout an area or the speed between points, or observe how the ranges and travels of turtles overlap.

I have always thought turtle populations fluctuate drastically. I suspect the numbers are directly related to the weather and soil conditions both at egg laying and hatching time. The complex cause and effect relations of animals is of great interest and need of study. Such studies help provide insight or aids for man to become sensitively attuned to his environment and what he is doing to it.



Pickereel, sunfish, fallfish, channel cats and suckers are native to my streams. Add the bass, bluegills and crappie and you have a real grab-bag.

The only effective way to fish a small stream is to get into it and wade. In warm weather the angler can slip into a pair of old trousers and sneakers or wading shoes and wade wet. Many prefer this. In very hot weather boots or waders cause the legs to sweat, creating about as much moisture as that in the stream itself. However, some anglers like the protection the boots give their feet and legs. They also dislike having their toes wrinkle from long periods of submersion.

It is not uncommon to find water too deep to wade—even in small streams. For this type of situation I tow a canvas-covered bubble—an old automobile innertube rigged with a seat into which I climb and float with the current. Ordinary hip boots are no good for riding the bubble as your seat is in the water! I either wade wet or wear chest waders depending upon how cold the water is.

The wading angler has the advantage of being close to the water—to study and fish it, and to approach a pool inconspicuously. The bank fisherman lacks these advantages. The wading angler can fish the entire stream, whereas the bank fisherman is blocked from much of it by heavy growth along the shore.

One of the secrets of success in stream fishing is to fish a section through—from one access point to another. This way you hit productive water other anglers rarely touch. It is too far from either access point. The best way to do this is to drop your car off at one access point and have someone taxi you to the next one. You can then fish back to your car, setting your own fish-producing pace. You may have to cover stretches of unproductive water to reach the good ones, but the results are usually worth it.

Because of often close quarters I use the lightest tackle I own for this kind of fishing. Lunkers are rare in the little streams, and the light tackle is delightful to fish with. The tackle described in the opening paragraphs of this article does yeoman work on my stream fishing jaunts.

Light fly fishing tackle is a joy to use, but the lack of room for a back cast eliminates too much good water.

An ultralight open-faced spinning outfit is just about perfect. In addition to being short and easy to cast with, the tiny reel, short rod and light line will handle the lightest of lures. The small plugs designed for ultralight tackle will even take sunfish and bluegills.

I fasten the tiny lures directly to the 2-pound test line. A swivel hampers the action of the delicate lures.

I have no desire to start a downstream-upstream controversy here, but I prefer downstream fishing for this type of

angling. Working upstream is fine on a trout stream where you need a natural float for dry flies, but for spoons, spinners, streamers and plugs you don't need this type of help from the current.

One of my reasons for fishing downstream arises from the use of the bubble described above. I need the current to drift through deep holes.

But aside from that I prefer fishing downstream.

With spinning tackle I can stand well back from a pool, unconcerned about the fact that fish face upstream and will likely spook if I get too close. I cover the top of the pool first—where feeding fish are most likely to position themselves for food that drifts in. I then move closer to work the tailwaters.

Other reasons.

Retrieving the lure against the current gives it better action, and action is of necessity weak in lures designed for ultralight tackle. An angler fishing through a typical stretch of small stream will cover a good bit of water, and moving

with the current is much less tiring than wading against it. The downstream angler enjoys the bonus of watching his stream grow in size and depth as he fishes. As the angler wades downstream he kicks up debris and bottom life which drifts ahead of him. This often stirs fish to feeding much as does the chum line used by salt-water anglers. The disturbance is not enough to muddy or color the water, but simply puts food into the mainstream. The fish may already be on a feeding spree when the angler's lure hits the water.

Of the wide variety of lures available to the angler, I by far prefer the surface plugs—the wigglers, the ones with concave heads that pop when retrieved, and the ones with tiny

propellers fore and aft that kick up a little spray. Even in midday the surface lures work. Most small stream pools are fairly shallow and a fish doesn't have to move far to strike. There is no angling thrill quite like that produced by a smashing surface strike, and I always start fishing with a topwater lure. It gets a thorough test before I go underwater. Often I never change lures.

In today's abused environment it is doubtful that any water is completely clean of pollution. Small streams are headwaters streams and normally safe from industrial and city waste, but many of them drain farming areas and likely carry a load of pesticides. Generally though, I will hazard a guess that if there is any clean water left in America you will find it in these small streams.

A final thought.

Try to hit the stream early and get home in time to prepare your catch for dinner. Small stream fish are best when cooked that way.



Canvas covered inner tube "bubble" will get you through the deep holes.





Edited by HARRY GILLAM

### Booklet Points Way to Better Environment



The Soil Conservation Society of America has announced the publication of an educational cartoon-type booklet designed to convey the importance of a quality environment to its readers. Titled, "Working Together for a Livable Land," the booklet is a 16-page, four-color publication on newsprint.

Robert W. Eikleberry, President of the Soil Conservation Society, stated "The booklet tells the story of a family returning to 'Dad's hometown' after a long absence . . . and finding the environment changed from the day 'Dad' was a lad! Because of the noticeable change, the family, including two teenagers, help the mythical community of Cranston organize to fight the pollution problems."

Eikleberry continued, "We believe the booklet has a message for young and old alike; however, we are certain that it will be much in demand by school and youth groups. The booklet is designed to allow local cooperative sponsors to use the back page for a message of their own."

"Working Together for a Livable Land" may be obtained as a single copy by remitting 25¢ to the Soil Conservation Society of America, 7515 N. E. Ankeny Road, Ankeny, Iowa 50021. Booklets are available to groups at considerably cheaper bulk prices, upon request.

### More Predators May Mean More Game

An interesting statement from an Iron Curtain scientist aptly illustrates

how man's tampering with the environment may destroy the very thing he strives to preserve. Alexander Cheltsov-Bebutov told a Congress of world wildlife biologists from 34 countries meeting in Moscow that worldwide protection for birds of prey might be a boon to game populations. "The more ruthlessly we destroy them," he said, "the more pesticides will be used against rodents while this, as we know, frequently leads to the death of game birds." The same philosophy would, of course, apply to foxes and coyotes. It is worth thinking about.

### Extensive Boat Ramp Upgrading Under Way

The Commission of Game and Inland Fisheries is in the midst of an extensive program of boat ramp improvement and upgrading, concentrating mainly on the James and Roanoke Rivers, to be completed by July 1. Ramps on the James, damaged by floods last fall, are being cleaned and restored to full usefulness. These include Wingina, Howardsville, Scottsville, Columbia, Cartersville, West View and Watkins, which has already been restored. All ramps were usable but most needed repairs to concrete ramps, cleanup of silt and re-graveling of parking areas and access roads.

At Smith Mountain, a new double concrete ramp has been constructed at Hardy's Ford Bridge approximately 1/4 mile downstream from the present ramp, which was left to accommodate small boats. A new road is to be constructed to Hale's Ford Landing, and site 6 on Myers Creek at Leesville Reservoir along Route 642 is to be improved. Sites 10 on Leesville and 8 on Smith Mountain have been closed permanently because of their poor location in favor of development at more desirable spots. The ramp at Brookneal was repaired in anticipation of heavy use during the striper run on the Roanoke. It was damaged during last fall's flooding. Farther downstream at Gaston Reservoir, a new double concrete ramp is nearing completion on Poplar Creek off Route 623.

### Five New Books Added To Garcia Fishing Library

The Garcia Corporation has added five new books to its Garcia Fishing Library, a carefully organized series of instructional books written by experts for the average fisherman, thereby increasing the total number of books in the library to 15.

The new books are: *Fishermen's Guide to Small Boats* by Jim Martenhoff, boating editor of the Miami Herald for the past 10 years; *Catch Coho* by Jerry Chiappetta of Detroit, a member of the Fishing Hall of Fame and widely known for his sportsmen's television programs; *Introduction to Fresh Water Fishing* by Milt Rosko, author of more than 400 articles in major outdoor magazines; *Artificial Lures* by Mark Sosin, outdoor editor for CBS radio, and *Tips and Tricks of Spinning* by Lefty Kreh, outdoor writer and light tackle saltwater specialist.

The 64-page books, all illustrated with photos and diagrams, articulate in clear, simple language, tips to acquire and improve fishing skills. The first 10 titles in the series of soft-covered books cover a wide range of fishing topics—from sharks to panfish, saltwater trolling and freshwater wading and from dry fly fishing in a stream to surf fishing for stripers.

Each volume is priced at \$1 at tackle and sporting goods shops or by writing to: The Garcia Corporation, 329 Alfred Avenue, Teaneck, N. J. 07666.







Edited by ANN PILCHER

Best—of 11,000 Essayists



Commission photos by Kesteloo

Happy scholarship and grand prize winners of the 23rd Wildlife Essay Contest were photographed on Awards Day in the Senate Chamber of the State Capitol in Richmond. *First row, from left:* Mary Elizabeth, sister of \$400 scholarship winner JUDY CAROLYN FRIEL, Alleghany County High senior; BRUCE BENTLEY, grade 5, High Point Elem., Washington Co.; RHONDA KAY HADEN, gr. 6, Woolwine High, Patrick Co. *Middle row:* RHONDA PUFFENBARGER, gr. 8, and CONNIE WARREN, gr. 7, both of Colonial Heights Junior High; DEBBIE O'BRIEN, gr. 9, Clarke Co. High; EMILY MEARS GREY, gr. 12, Onancock High, Accomack Co.; KATHERINE GAIL SYDNOR, gr. 10, Rappahannock High, Richmond Co. *Top row:* \$1000 scholarship winner SAMUEL MAURICE BOWDEN (left), gr. 12, Chincoteague High, Accomack Co.; PAUL F. GUSTAFSON, gr. 11, James Wood High, Frederick Co.

Ten-year-old Mary Elizabeth Friel did double duty on April 24. At the Essay Contest Award ceremonies, she not only represented her 12th grade scholarship winning sister (who was in Washington for a 4-H function) but also accepted from Governor Linwood Holton the \$15 award for her own school, Falling Spring Elementary in Hot Springs.

One hundred eighty-eight students received cash awards totaling \$3210 during the past month, most of the checks presented by game wardens at school programs throughout Virginia, for quality of contest entry on the subject—What Endangers Wildlife in Virginia. Additionally, 28 schools—all of whose 5th through 12th grade students participated in the contest—were recipients of \$15 school awards, amounting to \$420. Grand prize (\$50) winners from each grade and representatives of many of the 100% schools came to Richmond to receive the awards personally from the Governor.

### Something to Think About

This is what we are doing to our land. This picture was taken on the Chickahominy River in Mechanicsville. People think it is good to fill in the swamplands and marshes for industry such as this wrecking yard. They don't realize the harm that is done. This particular part of the Chickahominy swamps is not noted for hunting, but it is the home of many wild animals, such as deer, beaver, muskrat and other fur bearers, and is also the home of ducks and other waterfowl.

The contest is sponsored annually by the Virginia Division, Izaak Walton League of America and the Commission of Game and Inland Fisheries.

Winning schools included: *Callaghan Elementary*, Covington; *Falling Spring Elementary*, Hot Springs; *Appomattox Elementary*; *Spottswood Elementary*; *Buckingham Central High*; *Vaughan School*, Fries; *Etrick Elementary*; *Falling Creek Elementary*, Richmond; *Colonial Heights Jr. High*; *Cedar Lane Elementary* and *Our Lady of Good Counsel School*, both of Vienna; *Stonewall Elementary*, Clear Brook; *Mineral Elementary*; *Wilton Elementary*, Hartfield; *Carson Elementary*; *Belle Heth* and

These things are not noticed by many people, but it is pollution in its worst form—pollution that endangers Virginia's wildlife habitat.

JAMES DAVIS, 14, *Mechanicsville*

### Big Buck in Prince William

Field dressed, this 7 pointer weighed 137 pounds and sported a beam of 21 inches when downed on December 13 in Prince William County. Jimmy Loechler, 14, got his first deer behind his Dale City home near Route 610 using his grandfather's 12 gauge Winchester Model 12. A friend and hunting partner, Bill Rudolph, helped him drag the deer up and down hills about two miles to his home.

*McHarg Schools of Radford*; *Sacred Heart Elem. & Jr. High*, Richmond; *Green Valley Elementary*, Roanoke; *Thomas Harrison Jr. High* and *W. H. Keister Elementary* of Harrisonburg; *Swords Creek Elementary*; *Falmouth Elementary*; *Bethel and Hayters Gap Schools*, Abingdon; *Highland View*, Bristol; *Holston High*, Damascus; and *Bland Combined School*.

Tour of the Capitol, bus tour of the city, and barbecued chicken luncheon at the Izaak Walton Park in Chesterfield County were all part of Awards Day. The contest and awards activities were coordinated by F. N. Satterlee, Information Officer for the Game Commission.

### Chesterfield Children Receive Gun Safety Tips

As Cindy Motley (left) chats with Warden Patrol Leader J. R. Bellamy, Sheryl Byers (right) and Dinwiddie Co. Warden M. O. Wilkinson share in examining a gun used for safety instruction. Three hundred fifty Providence Junior High students passed the course in which teaching duties were also shared by Wardens R. L. Griffith of New Kent, J. C. Holt of Powhatan, and Patrol Leader W. R. Redford, Jr., of Hanover. Girls received instruction the first week; 7th grade boys, the next week. Fifty dollars was donated by the Chesterfield Ruritan Club toward materials as part of that club's Youth Committee program.

Commission photo by Kerrick





# ON THE WATERFRONT

Edited by JIM KERRICK



Starting position. Lie on disc with legs outstretched.



As the disc planes, get into kneeling position.



To stand, keep weight behind center of the disc with feet 12 to 18 inches apart.

## Disc Provides Skiing Fun

With a minimum of power and equipment you can enjoy the thrills of water skiing using a saucer to skim the water. This inexpensive form of boating fun requires only a disc or saucer, tow line and life jacket.

Any outboard boat powered by a motor of 6 or more horsepower can pull a disc rider. The dedicated angler may shudder to think of it, but his fishing boat can be turned into a ski boat to please his action-minded children.

A saucer is usually constructed of marine plywood measuring about three feet in diameter. While water skis require speeds in excess of 20 miles per hour, you can be up and flying at 10 mph on a saucer.

Even though you're traveling at relatively slow speeds, the saucer will supply plenty of thrills and spills. Even experienced skiers have taken some good dunkings before mastering the tricky saucer.

The following points will help for quick mastery of the sport.

Balance is the most important thing to remember. Keep your weight slightly to the rear of the disc. This keeps it on a plane and makes it easier to control.

As with water skiing, getting up usually presents the biggest problem for the beginner. To start, lie on the disc with your legs trailing behind you and on top of the water. Place the weight of your upper body on your elbows and extend your arms out straight. Hold the tow bar securely.

As the boat pulls the disc to a plane, slide your knees forward and get into a kneeling position. Then slide one foot forward, flat on the disc.

To stand up, balance your weight with one hand on the disc while the foot on the same side is slipping forward. Keeping your weight behind the center of the disc, stand up with your feet from 12 to 18 inches apart.

Remember to keep your weight to the back of the disc; otherwise the saucer will nose-dive and you'll get a dunking. Once you have the knack of standing, you can start to learn a few tricks that keep the sport challenging.

## Training and Experience

Boating, and I use the term loosely, involves the safe operation of a vessel, whether it is a twelve-foot fishing boat or a 65-foot yacht.

To operate a boat in a safe and sane manner, a person must first have the proper training. This training may be handed down through the family or received through a training course put on by the U. S. Coast Guard Auxiliary, U. S. Power Squadrons, American Red Cross or through a home study course. Classroom study is a must, but experience is gained only by actually operating a boat. Along with training and experience a boat operator must cultivate a sense of responsibility for his own safety as well as that of his passengers, and of all other boaters on the water.



Photos courtesy Evinrude Motors

Training in safe boating habits is the key to safe boating.

Our state of mind plays a very important role in boating. Accidents have been caused by the operator's being lazy, careless, tired, hot headed or a show-off. In some cases a despondent operator will cause accidents that normally would not happen.

If we have patience and mold a proper attitude toward boating, we will gain the respect of other boaters. We have seen an increase in pleasure boating—more boats being purchased, registered and used on our waterways. Fortunately, a great percentage of boaters have taken advantage of training courses, and the accident rate has declined.



**HUNGRY MOTHER LAKE**—Smyth County. North on No. 16 at Marion for approximately 3 miles. 108 acres. Boats available May-Sept.

**PRINCE EDWARD LAKE**—Prince Edward County. Approximately 3 miles southwest of Burkeville on No. 360, north 1 mile on No. 621, then west 1/2 mile on No. 629. 37 acres. Boats available May-Sept.

**WINSTON LAKE**—Cumberland County. No. 60 west of Cumberland, C.H. 3 miles to No. 629, then north 3 miles to lake. 10 acres.

**THIRD BRANCH LAKE**—Chesterfield County. Pocahontas State Park on Rt. 655 near Chesterfield Court House. 50 acres. Boats available May-Sept.

**SWIFT CREEK LAKE**—Chesterfield County. Pocahontas State Park on Rt. 655 near Chesterfield Court House. 100 acres. Boats available May-Sept.

**ARROWHEAD LAKE**—Cumberland State Forest. 6 acres. Via Forest Trail 19 off Rt. 629.

**BONBROOK LAKE**—Cumberland State Forest. 6 acres. Via Rt. 626.

**OAK HILL LAKE**—Cumberland State Forest. 6 acres. Via Forest Trail #11 off Rt. 629.

**LAKE BACOVA**—Bath County. Near Hot Springs. 8.8 acres.

## FEDERAL

### U. S. ARMY CORPS OF ENGINEERS—

**BUGGS ISLAND LAKE**—48,900 acres. Marinas, ramps, camping, map available from office, Route 2, Box 140, Boynton.

**PHILPOTT RESERVOIR**—2,880 acres. Marinas, ramps, camping, map available from office, Route 2, Box 40, Bassett.

**FLANNAGAN RESERVOIR**—1,143 acres. Access—ramps.

**LAKE DRUMMOND**—3,200 acres. Dismal Swamp. May be reached by boat only by way of the feeder ditch which opens into George Washington Canal (a part of the inland waterway) which lies alongside Route 17. No boats for rent.

### T.V.A.—

**SOUTH HOLSTON RESERVOIR**—7,580 acres. All open on Virginia or Tennessee license. Marinas, ramps. Maps available from office, Knoxville, Tenn.

### U. S. FOREST SERVICE—

**GEORGE WASHINGTON NATIONAL FOREST**—Tomahawk Pond (2 acres), Todd Lake (10.7 acres—open July 1, 1968), Elkhorn Lake (54 acres), Hearthstone Lake (16 acres), Hone Quarry Lake (7.4 acres—open 1969), Briery Branch Lake (10 acres—open 1969), Dry Run Lake (5.5 acres—open 1969), Blacks Run Lake (7.5 acres—open 1969), Puffenberger Pond (.2 acres), Braley Pond (4.5 acres), Upper Sherando (8 acres), Lower Sherando (26 acres) and Clifton Forge Reservoir (16 acres) are within the National Forest and a \$1 National Forest Stamp is required in addition to proper license. All are stocked with trout so are open only from the first Saturday in April through December 31. Some also contain bass and bluegills.

**JEFFERSON NATIONAL FOREST**—Gullion Fork (1.9 acres), Hale Lake (5.0 acres), and Horsepen Lake (19.2 acres) are within the Jefferson National Forest and the \$1 National Forest stamp is required in addition to the proper license. All are stocked with trout so are open only from the first Saturday in April through December 31. Some also contain bass and bluegills. Hale Lake is stocked with trout

throughout the season.

### U. S. DEPARTMENT OF INTERIOR—

#### FISH AND WILDLIFE SERVICE—

**HARRISON LAKE**—125 acres at Harrison. **LAKE NATIONAL FISH HATCHERY**, Charles City County. No boats for rent. Private boats without motors may be used. No permit required.

#### NATIONAL PARK SERVICE—

##### BLUE RIDGE PARKWAY—

**PEAKS OF OTTER LAKE**—Bedford County. (9 acres). Artificial lures with single hooks only. First Saturday in April through December 31.

## CITY

### PORTSMOUTH—

**LAKES CAHOON** (737 acres), **KILBY** (226 acres) and **MEADE** (786 acres). Closed Sundays. Permits \$.50 per person per day, \$25 per season. Boat rental \$1 per day. 7 1/2 hp., limit (electric only on Kilby). Open all year. Picnicking and camping at Lake Prince. Lakes west of Suffolk.

### NORFOLK—

**LAKES BURNT MILLS** (600 acres), **PRINCE** (900 acres) and **WESTERN BRANCH** (1600 acres), located near Suffolk and **LITTLE CREEK** (709 acres), **SMITH** (222 acres), **LAWSON** (98 acres), and **TAYLOR** (64 acres), located near Little Creek Amphibious Base. Fishing permits \$.50 per person per day. Boat use \$1.50 per day—private or water dept. \$20 annual (includes fishing permit). Permits available from fishing stations at Lake Prince and at Lake Smith (intersection of Shell Rd. and Northampton Blvd). Camping at Lake Prince—no fee—No motors over 12 hp.

### NEWPORT NEWS—

**CHICKAHOMINY RESERVOIR** (1500 acres). Statewide regulations apply. Marinas with boats and supplies—no permit required. \$1.00 fee for launching private boat. Camping available (see map for location). **DIASCUND RESERVOIR**—1700 acres—Boats for rent. License required to launch private boats \$10.00/year—No permit required. No gasoline motors—No bank fishing—Camping available. Season April through November. (See map for location).

**HARWOOD MILL POND**—300 acres and **LEE HALL RESERVOIR**—100 acres. \$1.50 daily permit required. Season first week after July 4th through December. Includes boat—private launch fee \$1.50.

### LYNCHBURG—

**PEDLAR LAKE** (75 acres)—Amherst County. Free permit from Lynchburg Water Department. Boat rental included in permit.

### ROANOKE—

**CARVINS COVE RESERVOIR**—630 acres. Botetourt County. Closed 10 P.M. daily. Marinas—Ramps—Launching fee \$1.50, Rental \$2.00, \$25 or \$1 per/hp.—Annual permit fee.

### BEDFORD—

**BEDFORD RESERVOIR** (28 acres). Entrance for 50¢, fishing 50¢, Boats \$1.25/hr., camping \$2.50—no private boat. Bedford County. **BEDFORD POWER DAM** (90 acres). Amherst and Bedford Counties on James. Off Rt. 501. No restrictions—only small boats practical.

### COLONIAL HEIGHTS—

**SWIFT CREEK RESERVOIR**—100 acres. Chesterfield County. Off Rt. 625. Open to fishing—Put in at City Waterworks. No motors, private boat launching allowed—No fee.

(Continued, next page)



**CULPEPER—**

MOUNTAIN RUN RESERVOIR—75 acres—Culpeper County. 5 miles west of Culpeper. Fishing permit available from City Treasurer—No gasoline motors. Permit required to launch.

**ALEXANDRIA—**

OCCOQUAN RESERVOIR—1700 acres. Fairfax County. Marinas—camping—ramps.

**VICTORIA—**

VIRGINIA RAILWAY FALLS (60 acres). Lunenburg and Nottoway Counties. Off state Rt. 49. No restrictions—No facilities.

**SOUTH BOSTON—**

WHITTLES MILL POND (60 acres), Mecklenburg County.

**CREWE—**

NOTTOWAY POND (65 acres). Nottoway County.

**GRETNA—**

GRETNA LAKE (12 acres), Pittsylvania County. Private boats allowed—no motors.

**MARTINSVILLE—**

MARTINSVILLE CITY RESERVOIR—150 acres. Henry County. 4 miles north of Martinsville—Rt. 108. No boats for rent. Private boats allowed—50¢ inspection fee 6 hp motor maximum—Day time use only.

**SMITHFIELD—**

SMITHFIELD RESERVOIR (18 acres). Isle of Wight County.

**PULASKI—**

GATEWOOD RESERVOIR (162 acres), Pulaski County. Open—No permit—Boats for rent—\$1.00 first hr., 50¢ each additional, \$4.50 8 hours. No private boats or gasoline motors. Minnows prohibited.

**DAYTON—**

SILVER LAKE (11 acres), Rockingham County. Trout Lake—April 1—December 31. No boats—Private boats and electric motors permitted.

**PETERSBURG—**

LAKE CHESDIN (2000 acres)—Near Petersburg. No restrictions—Boat ramps and marinas planned.

**DANVILLE—**

TALBOTT RESERVOIR (165 acres), Patrick County. Rt. 601 off Rt. 58. No restrictions—No boats or ramp.

**VIRGINIA BEACH—**

LAKE HOLLY (12 acres), and LAKE JOYCE (150 acres). No restrictions—No boats.

**RICHMOND—**

BYRD PARK—20 acres, BRYAN PARK—10 acres. No restrictions. No boats.

**RADFORD—**

LITTLE RIVER RESERVOIR—113 acres, Montgomery County. No facilities—no restrictions.

## COUNTY

**ALBEMARLE—**

BEAVER CREEK LAKE (103 acres). Fishing permit 50¢/day—available at County Office Building, Charlottesville; Sports Shop, Charlottesville; Crozet Hardware, Crozet. Boats available seasonally @ \$1.00/day, \$10.00/yr. Free ramps for launching private boats.

**FAIRFAX—**

GOOSE CREEK RESERVOIR (140 acres)—Loudoun County near Leesburg—No boats—no permit required.

**CHESTERFIELD—**

CHESTERFIELD COUNTY RESERVOIR (154 acres). Off Rt. 10. Fishing from highway right-of-way only except with permission of landowner. Light boats may be launched from right-of-way.

SWIFT CREEK RESERVOIR (1700 acres)—off 360—no access except at highway. No motors—Open to fishing—No fees.

## OTHER

**VIRGINIA ELECTRIC & POWER COMPANY—**

GASTON RESERVOIR—(20,000 acres)—Marinas, ramps, camping.

SNOWDEN DAM—(100 acres). Amherst, Bedford on James. Ramp—no boats for rent—no restrictions.

BALCONY FALLS DAM—(150 acres), Rockbridge County. No restrictions.

EMPORIA RESERVOIR—(210 acres), Greensville County. Meherrin River. No restrictions.

HALIFAX RESERVOIR—(400 acres). Halifax County. Bannister River—no restrictions. Rt. 501 near Halifax.

**APPALACHIAN POWER COMPANY—**

REUSENS DAM—(500 acres), Amherst—Bedford on James. No access—no restrictions.

NIAGARA DAM—Below Roanoke on Roanoke River.

SCOTTS MILL DAM—(180 acres)—Lynchburg on James.

LEESVILLE RESERVOIR—(3400 acres)—on Roanoke River. Marinas—ramps.

BYLLSBY RESERVOIR—(335 acres), Carroll County on New River. No facilities—No restrictions.

SMITH MOUNTAIN RESERVOIR—(20,000 acres)—Marinas, ramps, camping.

CLAYTOR LAKE—(4,485 acres)—Marinas, ramps, camping.

BUCKS RESERVOIR—New River above Claytor. No facilities—No restrictions.

**NORTHERN VIRGINIA POWER COMPANY—**

LURAY DAM—(125 acres). Page County.

NEWPORT DAM—(102 acres)—Page County.

**OWENS-ILLINOIS—**

BIG ISLAND DAM—(190 acres). Amherst and Bedford Counties on James.

HOLCOMB ROCK DAM—(150 acres)—Amherst and Bedford Counties on James.

**BEDFORD PULP & PAPER COMPANY—**

COLEMAN FALLS DAM—(210 acres). Bedford and Rockbridge Counties.

**C & O RAILROAD—**

BOSHER DAM—(425 acres) on James in Henrico and Chesterfield Counties.

**PRIVATE—**

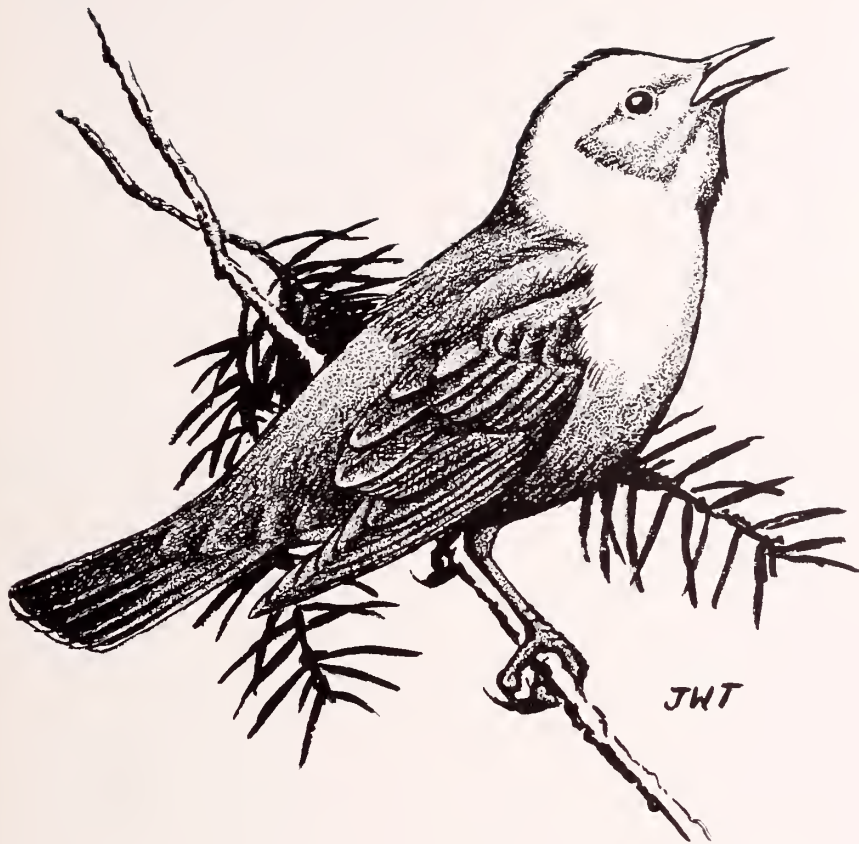
MARINER'S MUSEUM LAKE—Newport News—167 acres—\$2 per half day for boats including fishing.

BEAVER POND—195 acres. Amelia County. Rt. 153—5 miles south of 360. Free access—Boats \$1 per day.

WHEELERS POND—135 acres—Dinwiddie County off U. S. 1 on Rt. 613—50¢ access—\$1 per boat.

HOBBS POND—35 acres—Dinwiddie County—off U. S. 460 on Rt. 640—no admission fee—\$1 per boat.





Bird  
of  
the  
Month:

## The Prothonotary Warbler

By DR. J. J. MURRAY  
Lexington

**M**ANY bird watchers think of the prothonotary as the most beautiful of that very beautiful group of birds, the warblers. Lovely enough anywhere, its appeal is intensified by its natural surroundings in the dark low-land swamps. Its nests are found in such wet places from southern Michigan to central Florida. In winter it is seen as far south as northern South America.

Data on this warbler was published in the booklet, "A Check-List of the Birds of Virginia," February 8, 1952, and in revisions of that list in *The Raven*, 24, 34-45, May-June, 1953, and 26, 75-97, June-July, 1955.

In a chapter on the Dismal Swamp in *The Bird Watcher's America*, edited by Olin Sewall Pettingill, Jr., of the Laboratory of Ornithology at Cornell University, I wrote of the prothonotary warbler when in flight as a flash of orange fire over the dark waters of the Swamp. (This, by the way, is a book which every bird student should have. It covers in detail areas from Canada to the Florida Keys and from coast to coast.)

If one has access to a file of *The Wilson Bulletin*, organ of The Wilson Ornithological Society, he can find a good account of this bird by Lawrence H. Walkinshaw in Volume 65, 1953, pages 152-168, giving the details of its interesting

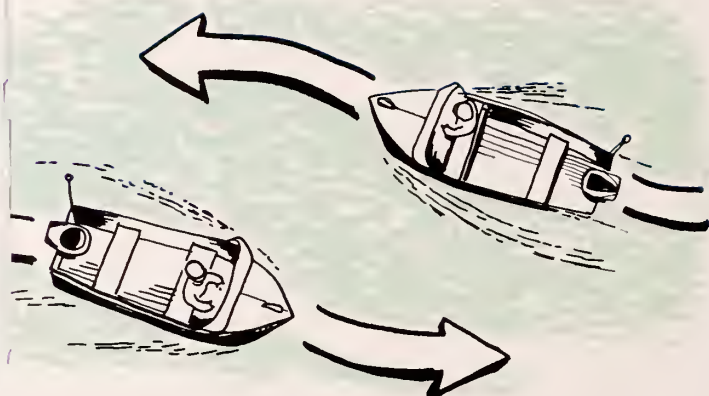
and unusual life history. He points out that before the female even arrives, the male chooses the hole in which the nest is to be built and begins carrying nesting material into it. This is very unusual in both respects among our birds.

In the chapter in *The Bird Watcher's America* I pointed out the fact that this warbler sometimes builds its nest only a few inches above the water. Because in the Dismal the water can spread into wide areas of the swamp, with little rise and fall, it is not likely that many of these nests are drowned out.

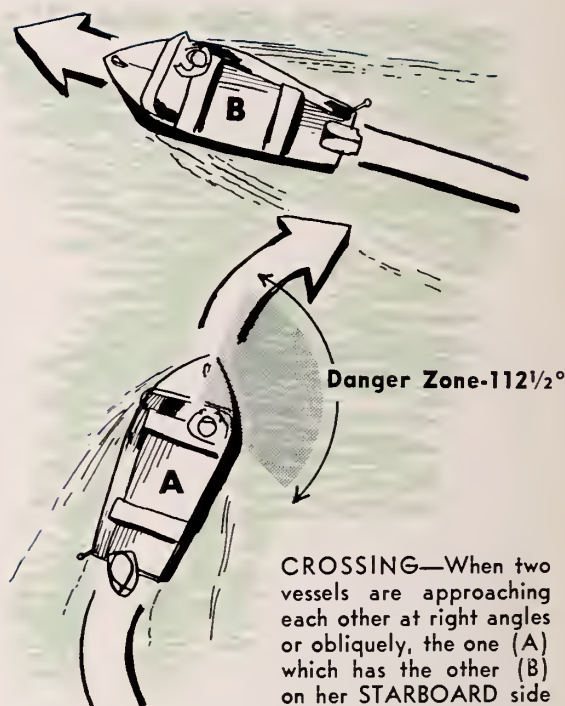
The prothonotary warbler nests in the Lower Austral Zone, which in our State means a small corner in southeastern Virginia and the lower tip of the Eastern Shore. In North Carolina, because of the more southern territory, the nesting area, according to Pearson and the Brimleys, seems to cover the eastern half of the State. It should be mentioned that Charles E. Stevens found a singing male near Hatton, on James River, on both the Albemarle and Buckingham sides of the streams, on June 16, 1952, and another male two miles down river on the Buckingham side on July 13, 1952. This would indicate at least the effort to nest higher up than has been indicated. Where the water level changes as often and as much as it does along the James, this effort probably means little.



# Know and Observe RULES of the ROAD

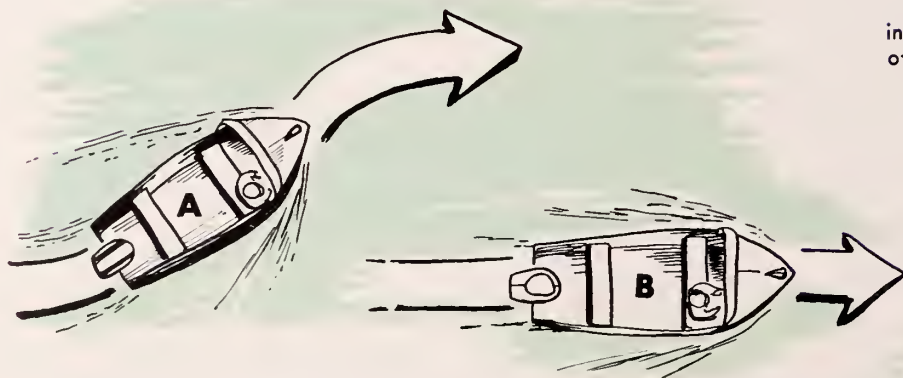


**PASSING**—When two vessels are approaching each other head-on or nearly so, it shall be the duty of each to maneuver to pass on the PORT side of the other.

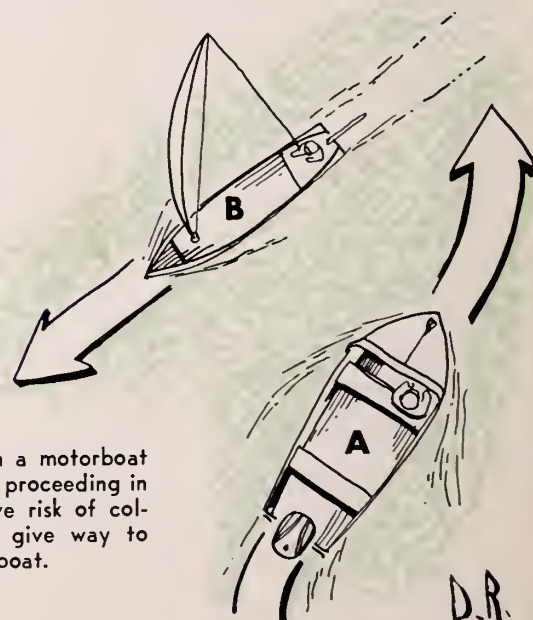


**CROSSING**—When two vessels are approaching each other at right angles or obliquely, the one (A) which has the other (B) on her STARBOARD side shall give way by directing her course to STARBOARD so as to cross astern of (B) who is required to hold course and speed.

ing her course to STARBOARD so as to cross astern of (B) who is required to hold course and speed.



**OVERTAKING**—An overtaking vessel (A) shall keep clear of the overtaken vessel (B), but (B) shall not change course to crowd in upon or cross the bow of (A).



**MOTOR AND SAIL**—When a motorboat (A) and a sailboat (B) are proceeding in such a manner as to involve risk of collision, the motorboat must give way to and keep clear of the sailboat.

USE COMMON SENSE AND COURTESY  
ALONG WITH THE RULES OF THE ROAD  
FOR SAFER BOATING.

D.R.